



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,275	01/26/2001	Thomas Thoroe Scherb	P20416	4360

7055 7590 04/04/2003

GREENBLUM & BERNSTEIN, P.L.C.  
1950 ROLAND CLARKE PLACE  
RESTON, VA 20191

EXAMINER

HALPERN, MARK


ART UNIT	PAPER NUMBER
----------	--------------

1731

DATE MAILED: 04/04/2003

20

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/769,275	Applicant(s) SCHERB ET AL. 	
	Examiner Mark Halpern	Art Unit 1731	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-27 and 29-70 is/are pending in the application.
- 4a) Of the above claim(s) 48-67 and 70 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-27, 29-47, 68 and 69 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>19</u> . | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

- 1) Acknowledgement is made of Response received 2/6/2003, Paper No. 19.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 2) Claims 1-5, 7-12, 16, are rejected under 35 U.S.C. 102(b) as being anticipated by Kamps (WO 96/35018).

Claims 1, 3-5, 8-12, 16: Kamps discloses an apparatus for producing a tissue paper web. The apparatus has an inner continuous dewatering belt 12 and an outer continuous dewatering belt 13; said belts are converging and are guided over a forming roll 15. A material feed device, a headbox 11, feeds a paper making stock suspension into a gap between the belts forming a fiber tissue web. Kamps discloses a suction element 30, which is a vacuum suction box (pg. 9, line 15), located adjacent and inside the inner belt on a side which is opposite the outer belt, said suction element being adjacent the area of separation of the belts. The belts separate immediately following the forming roll 15, with the web following the inner belt 12 over a pressure roll 41, which then enters a nip formed by roll 41 and a drying roll drum 40. The web then adheres to heated drying drum, which is equipped with a drying hood (pg. 9, line 27 to

pg. 10, line 5, and Figure 5). As shown in the Kamps Figure 5, the outer belt 13 does not come in contact with the forming roll.

Claims 2, 7: the dewatering wires of Kamps are of variable permeability (pg. 7, lines 21-36).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3) Claims 13-15, 17-21, are rejected under 35 U.S.C. 103(a) as being obvious over Kamps in view of Erikson (WO 94/28242).

Claims 13-15, 17-21; Kamps is applied as above for claim 1, Kamps does not disclose a suction element of adjustable vacuum. Erikson discloses a suction hydrofoil 7, located in the area of separation, of adjustable vacuum (Erikson, Abstract, pgs. 6-8, and Figure 1). It would have been obvious to combine the teachings of Erikson and Kamps, because such a combination would assure a more effective means of dewatering the web for web transfer onto the inner belt in the design of Kamps. The suction forming roll of Erikson is positioned in front of the separation point in a web travel direction. The Erikson suction box 23 forces are used in conjunction with the suction forming roll depending on the process conditions and the product being formed.

4) Claims 22-27, 29-47, 68, are rejected under 35 U.S.C. 103(a) as being obvious over Kamps in view of Erikson and further in view Kanitz (6,231,723).

Claims 22: Kamps discloses an apparatus for producing a tissue paper web. The apparatus has an inner continuous dewatering belt 12 and an outer continuous dewatering belt 13; said belts are converging and are guided over a forming roll 15. A material feed device, a headbox 11, feeds a paper making stock suspension into a gap between the belts forming a fiber tissue web. Kamps discloses a suction element 30, which is a vacuum suction box (pg. 9, line 15), located adjacent and inside the inner belt on a side which is opposite the outer belt, said suction element being adjacent the area of separation of the belts. The belts separate immediately following the forming roll 15, with the web following the inner belt 12 over a pressure roll 41, which then enters a nip formed by roll 41 and a drying roll drum 40. The web then adheres to heated drying drum, which is equipped with a drying hood (pg. 9, line 27 to pg. 10, line 5, and Figure 5). As shown in the Kamps Figure 5, the outer belt 13 does not come in contact with the forming roll. Kamps in view of Erikson does not disclose a conditioning device positioned adjacent the outer belt. Kanitz discloses a conditioning device 74, which is a water shower, positioned adjacent to an outer belt 28 (Kanitz, col. 3, line 10 to col. 4, line 49, and Figure 1). It would have been obvious to combine the teachings of Kanitz and Kamps in view of Erikson, because such a combination would provide improved maintenance on the forming belt in the Kamps design.

Claims 23, 29, 68; Kamps discloses wires of variable permeability.

Claim 24; Kamps discloses a suction element adjacent the inner belt.

Claims 25-27; Kamps discloses tissue separation from the outer belt and adhering to the inner belt, said belts being continuous belts.

Claim 30; Kamps discloses that the outer belt does not come in contact with the forming roll.

Claims 31-32, 36; Erikson discloses a suction forming roll, said roll comprises a suction zone.

Claims 33-35, 37-43; Erikson discloses suction box 23 in area adjacent to the separation point; said box is inside an inner belt loop. Vacuum is adjusted when the box is used in conjunction with the suction forming roll. Erikson discloses hydrofoil 7.

Claim 47; Kamps discloses a crescent former (Kamps, pg. 9, line 29).

5) Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamps in view of Erikson, and further in view of Kanitz as applied to claim 68 above, and further in view of Tietz (DE 197 56 422). Kamps in view of Erikson and further in view of Kanitz disclose the invention except for the nip being formed between a cylinder and a shoe press roll. Tietz discloses the web being guided over an inner belt 5 to a nip 4 between a drying cylinder 3 and a shoe press roll 2, after which the web is removed from the inner belt 5 (Tietz, col. 4, lines 19-68, and Figure). It would have been obvious to combine the teachings of Tietz with the teachings of Kamps, Erikson and Kanitz, into the design of Kamps, because such a combination would provide an economic means of removing moisture from the web prior to drying.

6) Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Odell (5,536,372). Odell discloses a twin wire former for a paper machine. The apparatus

has an inner continuous dewatering belt 10 and an outer continuous dewatering belt 20; said belts are converging and to form a stock inlet nip. A paper making stock suspension J is fed from a former into a gap between the belts forming a fiber web W. The belts separate immediately following the forming roll 15a, with the web following the inner belt 10. Suction flat boxes 85a and 85b are positioned adjacent the inner belt on a side opposite the outer belt. Said suction flat boxes 85a and 85b are located adjacent the forming rolls 15a and 22a (col. 11, line 64 to col. 12, line 5 and Figure 5).

***Response to Amendment***

- 7) Form PTO-1449 was received and a signed copy is attached with the action.
- 8) Form PTO-892 listing document DE 197 56 422 is attached with the action.
- 9) Applicant's arguments filed 2/6/2003, have been fully considered but they are not persuasive.

In regard to claim 1, Applicants allege that the cited prior art, Kamps, does not disclose that the suction device 30 is *positioned at least one of: within the forming roll, and adjacent the area of the separation point*. Applicants allege that the suction 30 device of Kamps is located far away from where the belts 12 and 13 separate.

Examiner responds as follows. Kamps, as shown in Figure 5, teaches that the suction device 30 is positioned adjacent the area of the separation of belts 12 and 13. In view that the claim or the Specification does not define the concept of what is meant by "adjacent", nor a specific distance is given as to how far the suction device should be

to be considered "adjacent", the Office interprets the location of the suction device of Kamps as being adjacent the area of separation.

In regard to amended claim 1, Applicants allege that the cited prior art, Odell, does not disclose that *at least one suction element being positioned at least one of: within the forming roll, and adjacent the area of the separation point.*

Examiner responds as follows. Odell discloses that the suction devices 85a and 85b are positioned adjacent the inner belt on a side opposite the outer belt, adjacent the area of the separation of belts 10 and 20. In view that the claim or the Specification does not define the concept of what is meant by "adjacent", nor a specific distance is given as to how far the suction device should be to be considered "adjacent", the Office interprets the location of the suction devices of Odell as being adjacent the area of separation.

Applicants allege that the at least one suction element is both positioned adjacent the area of separation point and immediately following the forming roll.

This is not agreed by the examiner, since it is not claimed.

Applicants allege that claims 13-15, 17-21, rejection under 35 U.S.C. 103(a) as being obvious over Kamps in view of Erikson, claims 22-27, 29-47, 68, rejection under 35 U.S.C. 103(a) as being obvious over Kamps in view of Erikson and further in view Kanitz, and claim 69 rejection under 35 U.S.C. 103(a) as being unpatentable over Kamps in view of Erikson, and further in view of Kanitz as applied to claim 68 above, and further in view of Tietz, are not proper. Applicants allege that the combinations of references are not proper because Kamps does not disclose the claimed invention.



Examiner maintains that the above rejections are proper.

***Conclusion***

10) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 703-305-4522. The examiner can normally be reached on Mon-Fri, (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7718 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone no. is 703-308-0651.


Application/Control Number: 09/769,275  
Art Unit: 1731

Page 9

MH

Mark Halpern  
Patent Examiner  
Art Unit 1731

March 31, 2003

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700